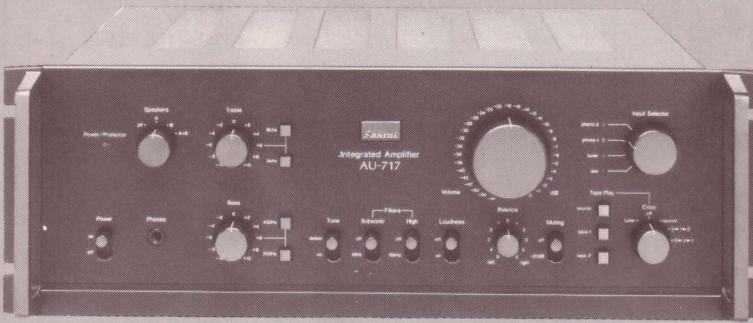


SERVICE MANUAL

INTEGRATED STEREO AMPLIFIER

SANSUI AU-517/717



SPECIFICATIONS

AU-517

Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.025% total harmonic distortion
65 watts per channel into 8 ohms

Load impedance

.8 ohms

Power bandwidth

.20 to 20,000 Hz at or below rated min. RMS power output and total harmonic distortion

Total harmonic distortion (POWER AMP IN)

less than 0.025% at or below rated min. RMS power output

Intermodulation distortion (70 Hz: 7 kHz = 4:1 SMPTE method)

less than 0.025%

Frequency response (at 1 watt) (POWER AMP IN)

.0 to 200,000 Hz +0 dB -3 dB

RIAA curve deviation (PHONO)

.+0.2 dB -0.2 dB

Damping factor

(20 to 20,000 Hz)
approximately 60 at 8 ohms load

Input sensitivity and impedance (1 kHz, for rated power output)

PHONO 2.5 mV/47 kilohms
(Max. input capability: 320 mV at 1 kHz, less than 0.01% harmonic distortion)

AUX, TAPE 150 mV/47 kilohms

Output level (1,000 Hz)

TAPE REC (pin jack) 150mV/47 kilohms
PRE OUT 1V/47 kilohms

Channel separation (1 kHz, at rated power output)

PHONO better than 60 dB

AUX better than 65 dB

Hum and noise (short-circuit, A-network)

PHONO78 dB

AUX100 dB

Controls

BASS +10 dB (50 Hz)

TREBLE +10 dB (15 kHz)

SUBSONIC FILTER -3 dB (16 Hz), 6 dB/oct

LOUDNESS (-30 dB)9 dB at 50 Hz

7 dB at 10 kHz

Power requirements

Power voltage100, 120, 220, 240V (50/60Hz)

120V (Usable 110 - 130V)

60 Hz (for U.S.A. & Canada only)

Power consumption

Maximum consumption660 watts

Rated consumption345 watts 420 VA

Dimentions

.430 mm (16-15/16") W

168 mm (6-5/8") H

389 mm (15-3/8") D

Weight

.16.5 kg (36.4 lbs) net

18.5 kg (40.8 lbs) packed

* Design and specifications subject to change without notice for improvements.

Sansui

SANSUI ELECTRIC CO., LTD.

1. SPECIFICATIONS

AU-717

Power output

Min. RMS, both channels driven, from 20 to 20,000 Hz, with no more than 0.025% total harmonic distortion

85 watts per channel into 8 ohms

Load impedance

8 ohms

Power bandwidth

20 to 20,000 Hz at or below rated min. RMS power output and total harmonic distortion

Total harmonic distortion (POWER AMP IN)

less than 0.025% at or below rated min. RMS power output

Intermodulation distortion (70 Hz: 7 kHz = 4:1 SMPTE method)

less than 0.025%

Frequency response (at 1 watt) (POWER AMP IN)

0 to 200,000 Hz +0 dB -3dB
+0.2 dB -0.2 dB

RIAA curve deviation (PHONO)

(20 to 20,000 Hz)

Damping factor

approximately 60 at 8 ohms load

Input sensitivity and impedance (1 kHz, for rated power output)

PHONO 2.5 mV/47 kilohms
(Max. input capability; 350 mV at 1 kHz, less than 0.01% total harmonic distortion)

AUX, TAPE

150 mV/47 kilohms

Output level (1,000 Hz)

TAPE REC (pin jack) 150 mV/47 kilohms
PRE OUT 1 V/47 kilohms

Channel separation (1 kHz, at rated power output)

PHONO better than 60 dB
AUX better than 65 dB

Hum and noise (short-circuit, A-network)

PHONO 78 dB
AUX 100 dB

Controls

BASS	± 10 dB (50 Hz)
Tone selector	200, 400 Hz
TREBLE	± 10 dB (15 kHz)
Tone selector	3, 6 kHz
SUBSONIC FILTER	-3 dB (16 Hz), 6 dB/oct
HIGH FILTER	-3 dB (10 kHz), 6 dB/oct
MUTING	-20 dB
LOUDNESS (-30 dB)	9 dB at 50 Hz 7 dB at 10 kHz

Power requirements

Power voltage 100, 120, 220, 240V (50/60Hz)
120V (Usable 110 – 130V)
60 Hz (for U.S.A. & Canada only)

Power consumption

Maximum consumption 735 watts
Rated consumption 425 watts 500 VA

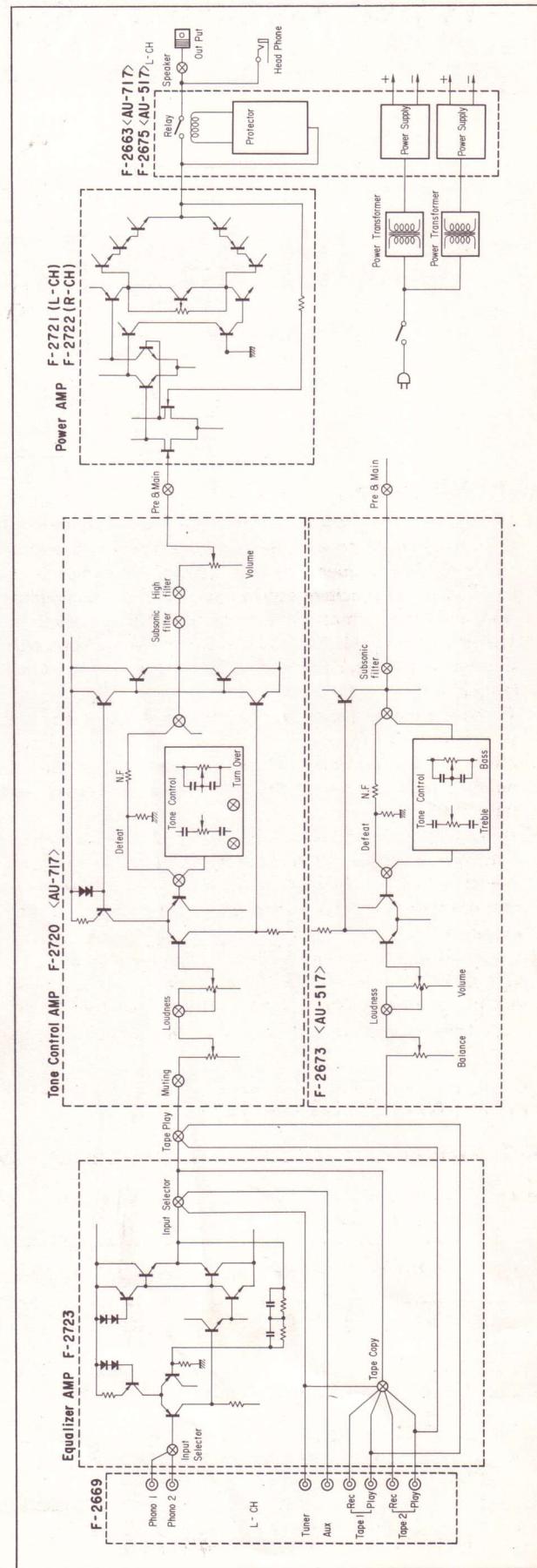
Dimensions

430 mm (16-15/16") W
168 mm (6-5/8") H
389 mm (15-3/8") D

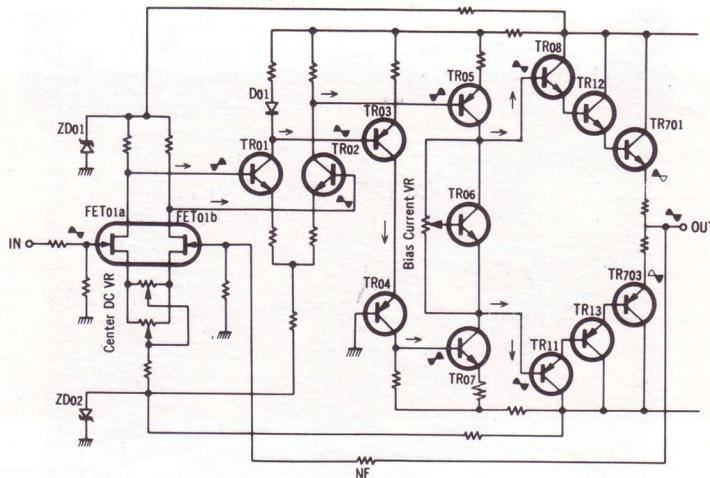
Weight

17.8 kg (39.2 lbs) net
19.8 kg (43.7 lbs) packed

2. BLOCK DIAGRAM



3. ADVANTAGE AND OPERATION OF POWER AMPLIFIER CIRCUITRY SECTION



3-1. Advantage

- ◊ There is necessity not to decrease the phase response till DC range in order to increase the music signal response of extremely low frequency range. Therefore, this amplifier is employing no capacitors except ones for phase compensation, and has an almost perfect transient characteristics.
- ◊ The first stage FET (2SK97) is a dual FET of even characteristics and has a large Gm and no-leakage current at normal temperature.
- ◊ To avoid the influence by temperature drift, such as center voltage (0V) deviation, this FET is used as differential amplifier and operates at cross point which is the optimum point of drain current (at about 3mA) against the temperature drift.
- ◊ Transistors, TR05 and TR07, the push-pull pre-driver stage functions as current differential amplifier that the stabilized operation can be obtained. In addition, the collector current of these transistors is enough high to make linearity excellent.
- ◊ Since this Amplifier employs phase advancer circuits [C06, C08, C15, R29, C16 and R30], which have not been frequently used, to compensate the phase characteristics on high frequency range and is also made to have enough

current on each stage to increase the through-rate, the performance on high frequency range is conspicuously improved.

- ◊ To avoid the voltage deviation, regulated power supply circuit composed of ZD01, ZD02 is employed.

3-2. Operation

The use of differential amplification at first stage dual FET, (FET01, FET02) and connection of the FET to the differential amplifier composed of TR01, TR02, make possible to obtain enough gain and remarkable low distortion.

The output signals of TR01 and TR02 are untiphase.

The output signal of TR02 adds to TR05, on the other hand, the output phase of TR01 is inverted by TR03, then, it becomes input signal of TR04 and TR07 which are cascaded connection. The output signals at TR05 and TR07 are inphase that the operation of this stage is push-pull drive and current differential amplification. The power amplifier of the final stage is composed of SEPP (Single Ended Push-Pull) symmetry complementary in 3-stage darlington connection type.

TR09 and TR10 are composing current limiter circuit to protect power transistor from break-down by overload.

4. ADJUSTMENTS

4-1. Driver Circuit Board Adjnstments

(See the picture of top view on page 3.)

Note: 1. Master Volume Minimum
2. Room Temperature

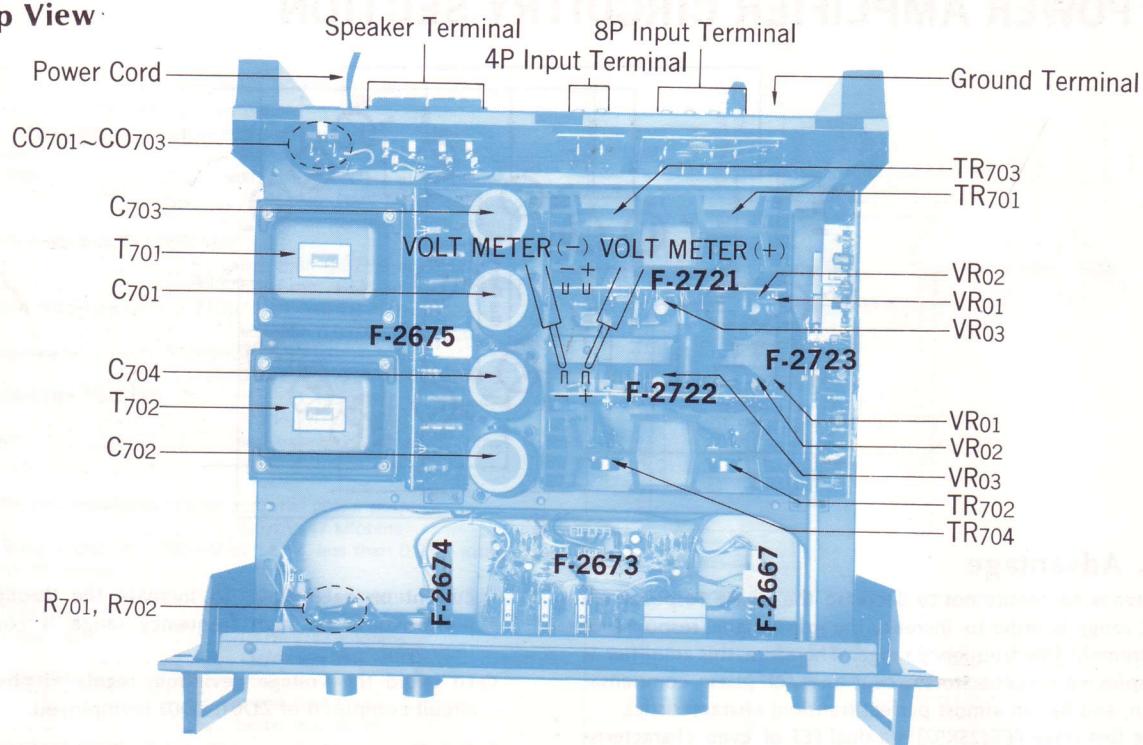
3. For adjustment, run the unit for more than 3 minutes after the power is switched on.

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1.	DC 0V L-CH	DC Volt Meter	Speaker Terminal	F-2721 VR01, VR02	DC 0V±5mV	◊ Set VR01 and VR02 to center position. ◊ Then, for the purpose of proceeding the accurate adjustment, set the voltage to 0 volt by VR01 first and VR02 next.
2.	DC 0V R-CH	Same as above	Same as above	F-2722 VR01, VR02	DC 0V±5mV	
3.	Bias Current L-CH	Same as above	TP Terminal (+)(-) of F-2721	F-2721 VR03	DC 20mV±1mV	◊ By turning VR03 counterclockwise, the bias current is decreased gradually.
4.	Bias Current R-CH	Same as above	TP Terminal (+)(-) of F-2723	F-2722 VR03	DC 20mV±1mV	

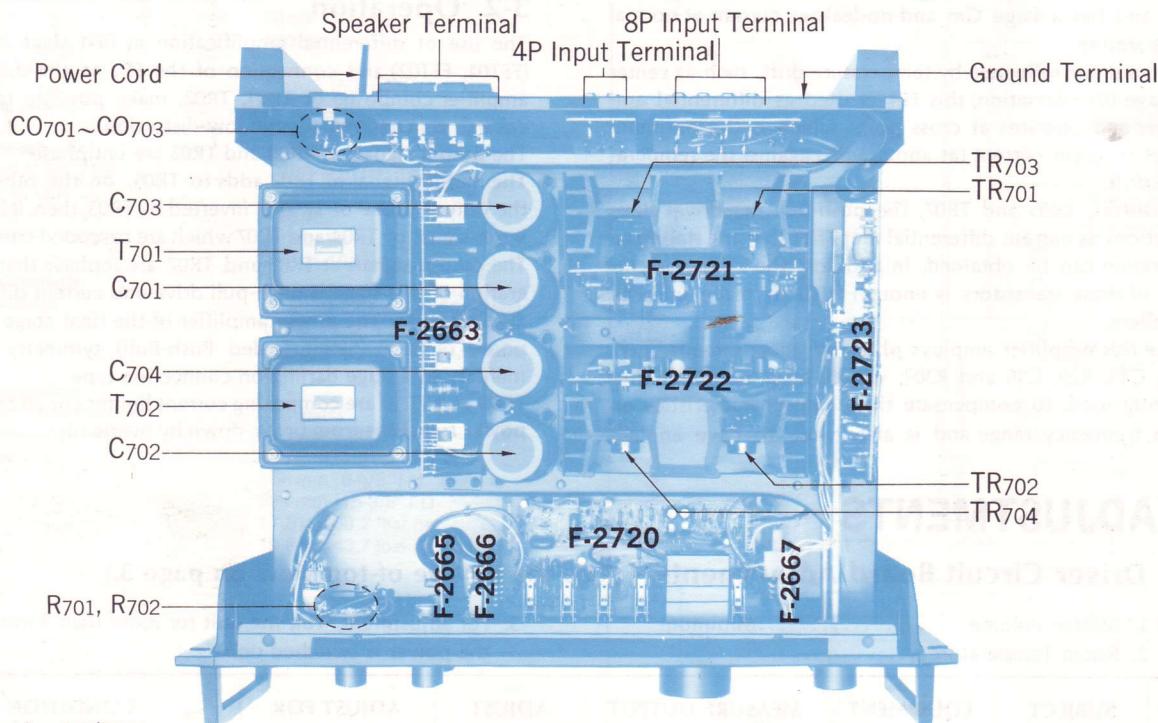
5. OTHER PARTS

5-1. Top View

<AU-517>



<AU-717>



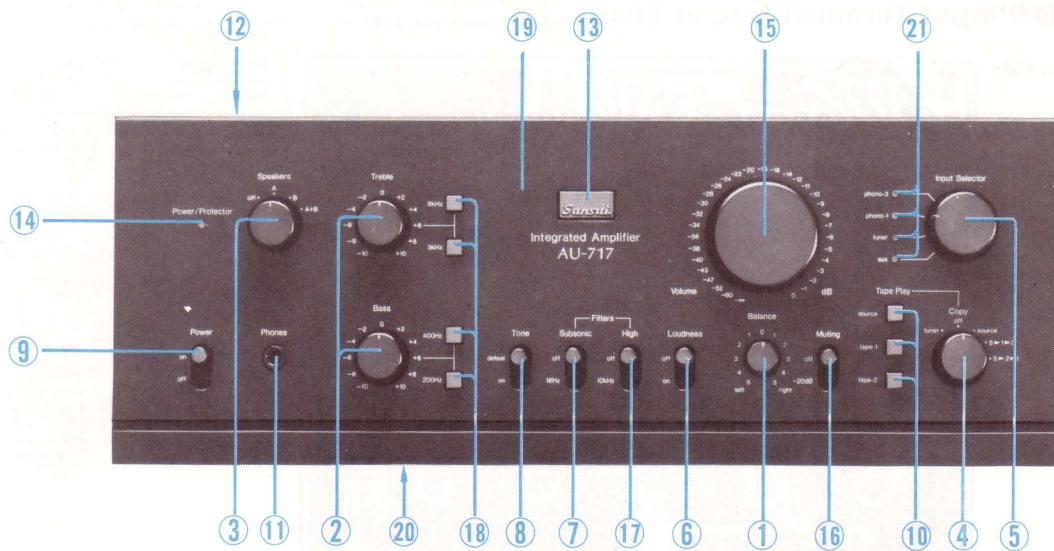
Parts List <AU-517/717>

Parts No.	Stock No.	Description
C705	0659801	0.01μF 150V M.C.
C707-714	0602109	1.0μF 100V M.C.
R701, 702	0202221	220Ω 2W N.I.R.
CO701-703	2450060	AC Outlet XX
	5066280	AC Outlet EU, BS
	2290190	Speaker Terminal
	3800010	Power Cord XX
	3800190	Power Cord EU
	3800320	Power Cord BS
	2300060	Power Fuse Holder XX
	2300090	Power Fuse Holder EU, BS
	2410091	Voltage Selector Plug XX
	2410830	Voltage Selector Socket XX

Parts No.	Stock No.	Description
	2411240	Voltage Selector SW EU, BS
	2230052	Ground Terminal
AU-517 Only		
TR701, 702	0306450-2	2SC1403A R, O, Y } Transistor
TR703, 704	0300830-2	2SA745A R, O, Y }
C701-704	0559518	12000μF 63V E.C.
T701, 702	4002590	Power Transformer XX
	4002594	Power Transformer EU, BS
	4002592	Power Transformer UL, CSA
F701	0432270	3.5A 125V } Power Fuse XX
	0432500	7A 125V }
	0435140	2.5A Power Fuse EU, BS

Parts No.	Stock No.	Description
AU-717 Only		
TR701, 702	0305840-2	2SC1116 R, O, Y }
TR703, 704	0300520-2	2SA747 R, O, Y }
C701-704	0559520	15000μF 63V E.C.
T701, 702	4002580	Power Transformer XX
	4002584	Power Transformer EU, BS
	4002582	Power Transformer UL, CSA
F701	0432290	5A 125V } Power Fuse XX
	0434060	10A 250V }
	0435150	3.15A Power Fuse EU, BS

5-2. Front View <AU-717>



Parts List <AU-517/717>

Parts No.	Stock No.	Description
1	{5318850 1015170, 1}	N-7 Type Knob 250kΩ (MN) × 2 Balance Volume L=25 P=5
2	{5318840 1015230, 1}	K-7 Type Knob 100kΩ (C) × 2 Treble, Bass Volume L=25 P=7
3	{5318840 1101780, 1}	K-7 Type Knob Rotary Switch, Speakers
4	[1190410]	Rotary Switch, Tape Copy
5	{5318830 [1190410]	I-7 Type Knob Rotary Switch, Input Selector
6	{5326611 [1171150]	Lever Switch Knob Lever Switch, Tone Defeat
7	{5326611 [1171150]	Lever Switch Knob Lever Switch, Power
8	[1171630]	Lever Switch, Power EU, BS

Parts No.	Stock No.	Description
10	{5326620 5286721 1131400}	Push Switch Knob Knob Guide Push Switch, Tape Play
11	2430290	Head Phone Jack
12	5006670	Bonnet
13	5336600	Sansui Badge
14	{0319110 5507070}	Light Emitted Diode Leg

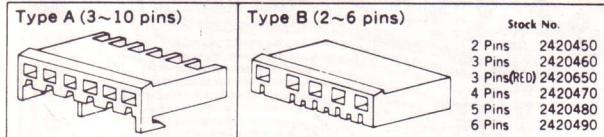
AU-517 Only

Parts No.	Stock No.	Description
6	{5326611 [1171120]	Lever Switch Knob Lever Switch, Loudnes
7	{5326611 [1171130]	Lever Switch Knob Lever Switch, Subsonic Filter
15	{5318860 [1090280]	H-7 Type Knob 150kΩ × 2 Volume L=25 P=9
16	{5326611 [1171120]	Lever Switch Knob Lever Switch, Muting
17	{5326611 [1171130]	Lever Switch Knob Lever Switch, High Filter
18	{5286721 [1131400]	Push Switch Knob Knob Guide
19	7007570	Front Panel Ass'y
20	5058730	Bottom Plate
21	0319110	Light Emitted Diode

● Figures

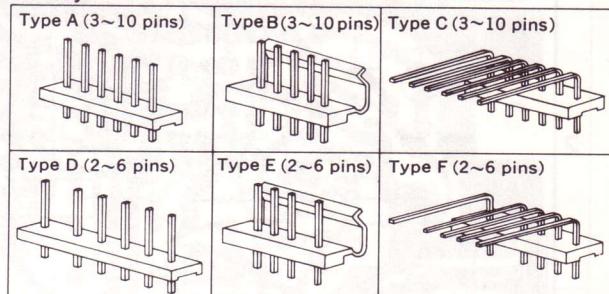
Connectors & Pin Ass'y

Connectors



NOTE: Since stock number of female connectors (type B) with wires are not shown in each parts list of Complete circuit board, please refer to the above parts list when ordering the connector.

Pin Ass'y



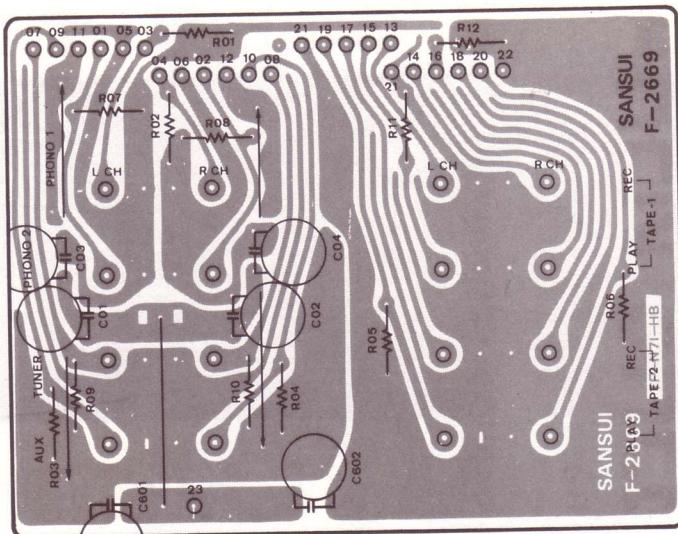
Abbreviations

C.R.	: Carbon Resistor	E.C.	: Electrolytic Capacitor
S.R.	: Solid Resistor	BP.E.C.	: Bi-Polar Electrolytic Capacitor
Ce.R.	: Cement Resistor	C.C.	: Ceramic Capacitor
M.R.	: Metal Film Resistor	MI.C.	: Mica Capacitor
F.R.	: Fusing Resistor	O.C.	: Oil Capacitor
N.I.R.	: Non-Inflammable Resistor	P.C.	: Polystyrene Capacitor
M.C.	: Mylar Capacitor	T.C.	: Tantalum Capacitor

6. PARTS LOCATION & PARTS LIST

6-1. F-2669 Input Terminal Circuit Board (AU-517 Stock No. 7595201) (AU-717 Stock No. 7595171)

Conductor Side



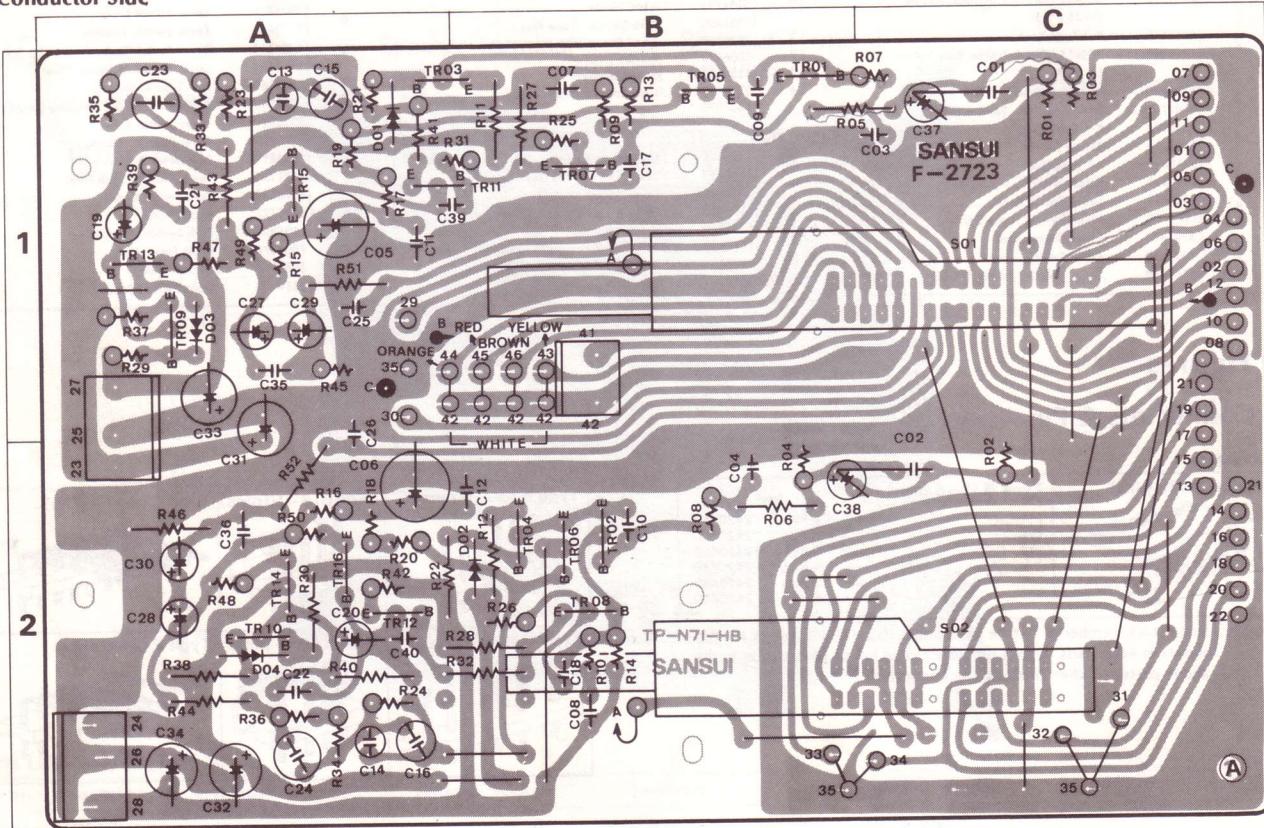
Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the common parts list for capacitors & resistors which was appended previously to each Sansui Manual.

Parts List

Parts No.	Stock No.	Description
2200480		8P Input Terminal

6-2. F-2723 Equalizer Circuit Board (AU-517 Stock No. 7551171) (AU-717 Stock No. 7551161)

Conductor Side



Parts List

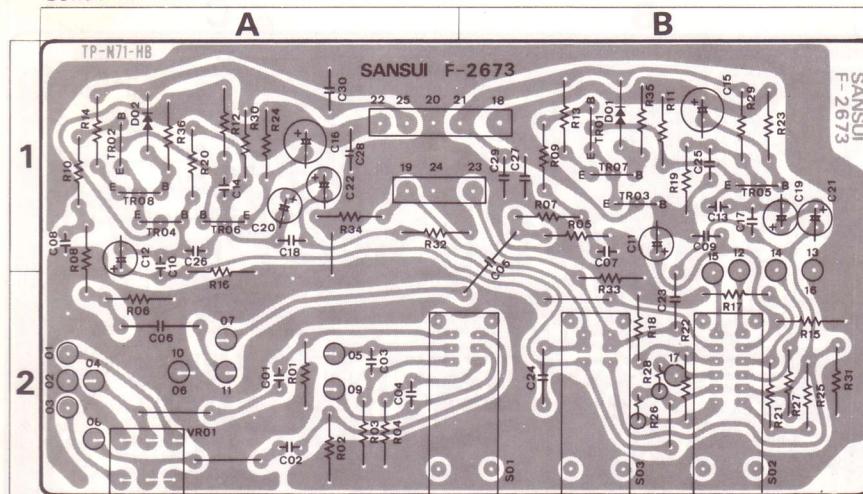
Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01, 02	0300900, 1	2SA906 (G, H)	1 B . 2 B	C01, 02	0602109	1.0μF 100V M.C.	1 C . 2 C	R47, 48	0193820	82Ω 1/4W F.R.	1 A . 2 A
TR03, 04	0300470, 1	2SA726(W, F, G)	1 A . 2 B	C07, 08	0620121	120pF	1 B . 2 B	R49, 50	0193820	82Ω 1/4W F.R.	1 A . 2 A
TR05, 08	0300900, 1	2SA906 (G, H)	1 A . 2 B	C13, 14	0620151	150pF	1 A . 2 A	S01	1190420	Input Rotary Switch	1 B , C
TR07, 10	0306290, 1	2SC1400(1) (E, U)	1 B . 2 B	C15, 16	0625272	2700pF	1 A . 2 A	S02	1190410	Tape Copy Rotary Switch	2 B , C
TR09, 10	0300890, 1	2SA750(3) (E, U)	1 A . 2 A	C23, 24	0625103	10000pF	1 A . 2 A	2410920	3P Pin Ass'y Type E		
TR11, 12	0306290, 1	2SC1400(1) (E, U)	1 A . 2 A	R17, 18	0231561	560Ω	1 A . 2 A				
TR13, 14	0306290, 1	2SC1400(1) (E, U)	1 A . 2 A	R19, 20	0231220	22Ω	1 A . 2 A				
TR15, 16	0300890, 1	2SA750(3) (E, U)	1 A . 2 A	R23, 24	0231273	27kΩ 1/2W M.R.	1 A . 2 A				
D01, 02	0340120	VD1212 } Varistor	1 A . 2 B	R33, 34	0231153	15kΩ 300Ω	1 A . 2 A				
D03, 04	0340120	VD1212 }	1 A . 2 A	R35, 36	0231304		1 A . 2 A				

AU-717 Only

2410910	2P Pin Ass'y Type E
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6-3. F-2673 Tone Control Circuit Board (AU-517 Stock No. 7561841)

Conductor Side

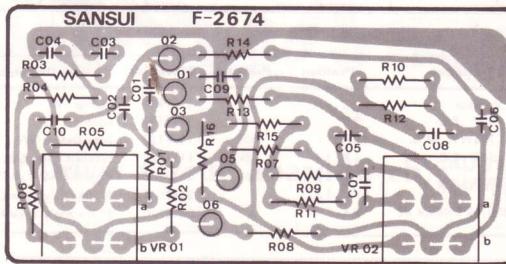


Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306010, 1	2SC1222(2) (U, E)	1 B . 1 A
TR03, 04	0306010, 1	2SC1222(2) (U, E)	1 B . 1 A
TR05, 06	0300890, 1	2SA750(3) (E, U)	Transistor 1 B . 1 A
TR07, 08	0306010, 1	2SC1222(2) (U, E)	
D01, 02	0340120	VD1212 Varistor	1 B . 2 B
C01, 02	0610361	360pF 50V P.C.	2 A
C05, 06	0602338	0.33/ μ F 100V M.C.	
VR01	1015170, 1	250k Ω (MN) \times 2 Balance VR	2 A
S01	1171120	Loudness Lever Switch	2 A . B
S02	1171150	Tone Defeat Lever Switch	2 B
S03	1171120	Subsonic Filter Lever Switch	2 B
	2410570	5P Pin Ass'y Type D	
	2410920	3P Pin Ass'y Type E	

6-4. F-2674 Bass & Treble Volume Circuit Board (AU-517 Stock No. 7561861)

Conductor Side

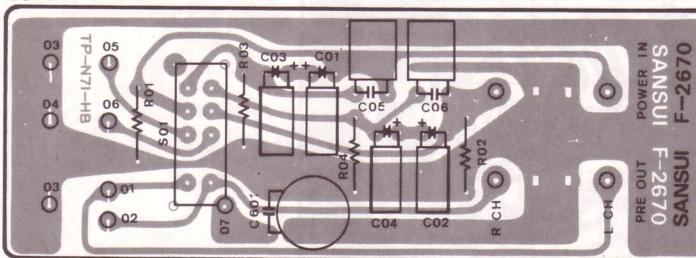


Parts List

Parts No.	Stock No.	Description
VR01, 02	1015230, 1	100k Ω (C) \times 2 Treble, Bass Volume

6-5. F-2670 Pre-Main Switch Circuit Board (AU-517 Stock No. 7595211) (AU-717 Stock No. 7595191)

Conductor Side

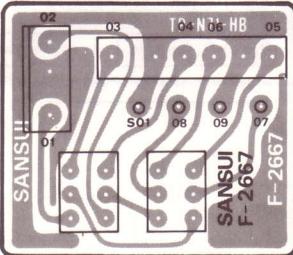


Parts List

Parts No.	Stock No.	Description
S01	1110290	PRE-MAIN Slide Switch
	2200500	4P Input terminal

6-6. F-2667 Tape Play Circuit Board (AU-517 Stock No. 7595181) (AU-717 Stock No. 7595221)

Conductor Side

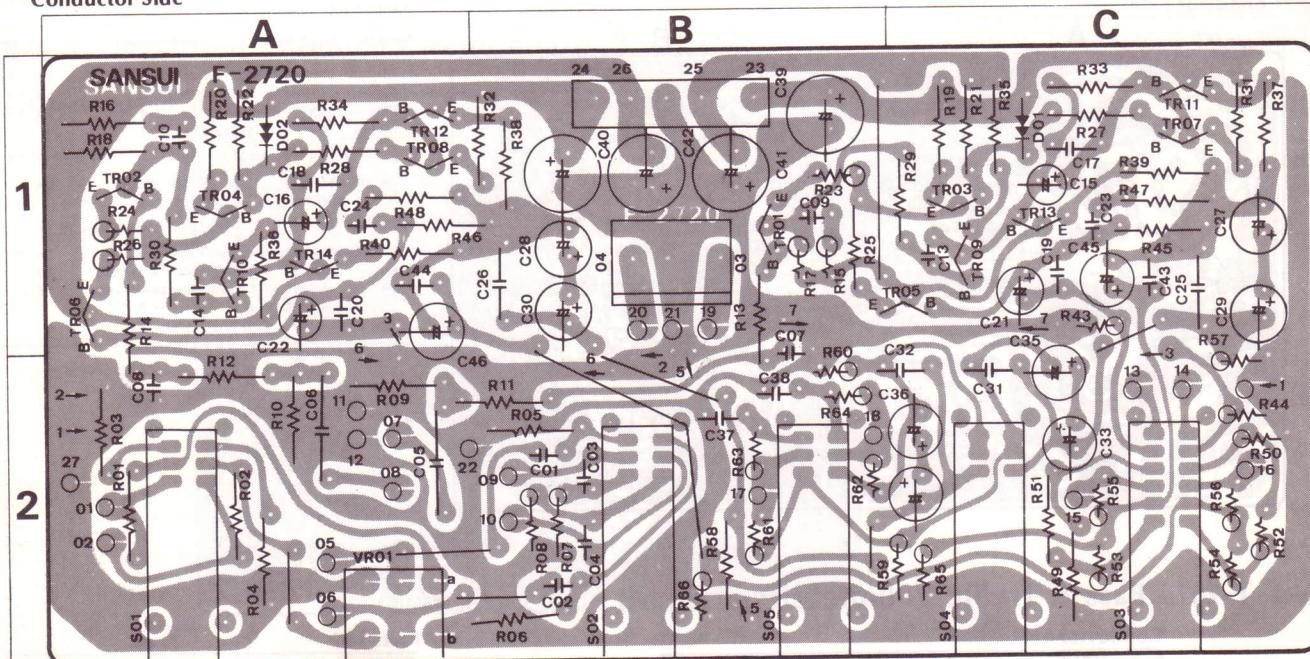


Parts List

Parts No.	Stock No.	Description
S01	1131400	Tape Push Switch
	2410700	6P Pin Ass'y Type F
	2410920	3P Pin Ass'y Type E

6-7. F-2720 Tone Control Circuit Board (AU-717 Stock No. 7561941)

Conductor Side



Parts List

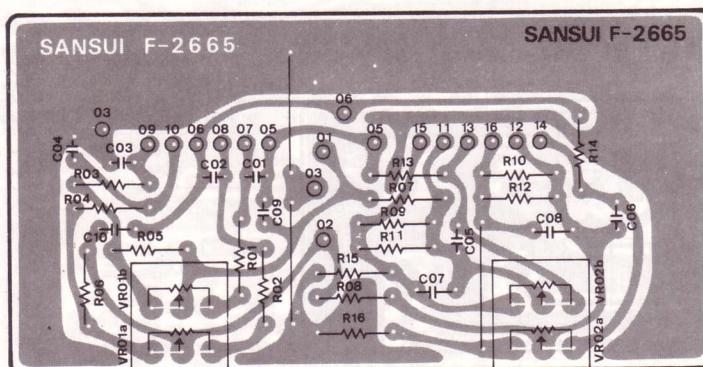
Parts No.	Stock No.	Description	Position
TR01, 02	0360370-2	2SA798 (F, G, H)	1 B. 1 A
TR03, 04	0300470, 1	2SA726(W) (F, G)	1 C. 1 A
TR05, 06	0306290, 1	2SC1400(1) (E, U)	1 C. 1 A
TR07, 08	0300890, 1	2SA750(3) (E, U)	Transistor 1 C. 1 A
TR09, 10	0306290, 1	2SC1400(1) (E, U)	1 C. 1 A
TR11, 12	0306290, 1	2SC1400(1) (E, U)	1 C. 1 A
TR13, 14	0300890, 1	2SA750(3) (E, U)	1 C. 1 A

Parts No.	Stock No.	Description	Position
D01, 02	0340120	VD1212 Varistor	1C, 1A
C01, 02	0620361	360pF 50V P.C.	2B
C05, 06	0602338	0.33μF 100VV M.C.	2A
C09, 10	0620121	120pF 50V P.C.	1B, 1A
R37, 38	0191820	82Ω	1C, 1B
R39, 40	0191820	82Ω	1C, 1A
VR01	1015170, 1	250kΩ(MN) × 2 Balance VR	2A

Parts No.	Stock No.	Description	Position
S01	11711130	Muting SW	2 A
S02	11711130	Loudness SW	2 B
S03	11711150	Tone Defeat SW	2 C
S04	11711130	Subsonik Filter SW	2 C
S05	11711130	High Filter SW	2 B
	2410570	5P Pin Ass'y Type D	
	2410920	3P Pin Ass'y Type E	

6-8. F-2665 Bass & Treble Volume Circuit Board (AU-717 Stock No. 7561851)

Conductor Side

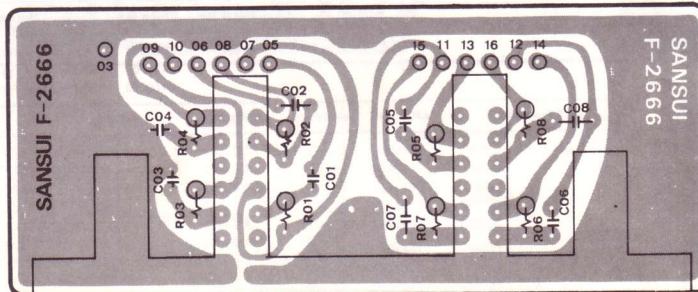


Parts List

Parts No.	Stock No.	Description
VR01,02	1015230,1	100k Ω (C)×2 Treble, Bass Volume

6-9. F-2666 Turn Over Switch Circuit Board (AU-717 Stock No. 7561871)

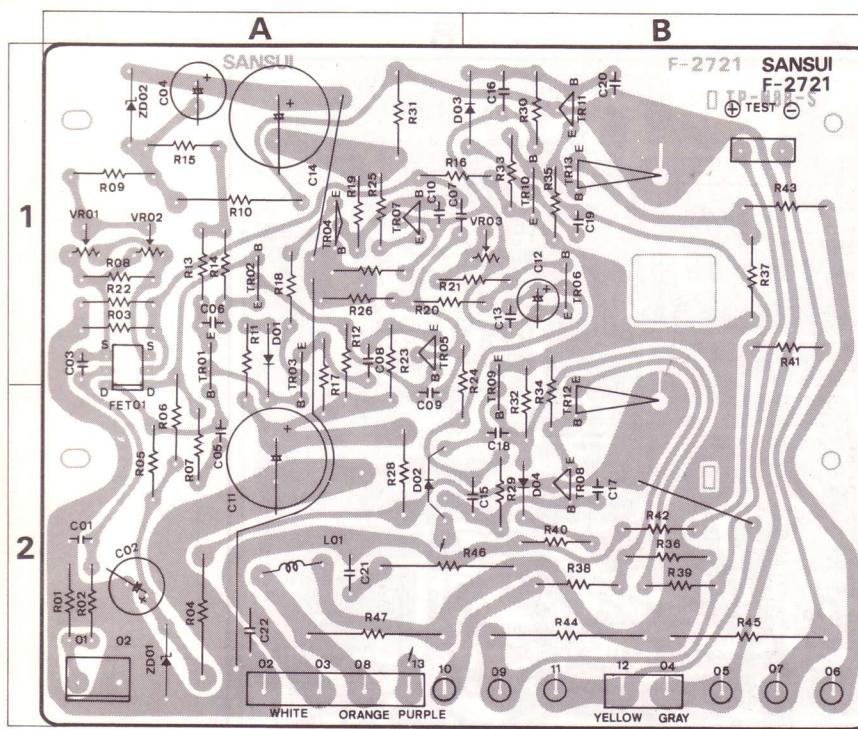
Conductor Side



Parts List

Parts No.	Stock No.	Description
S01	1131410	Turn Over Push SW

6-10. F-2721 Driver Circuit Board (L-CH) (AU-517 Stock No. 7571721) (AU-717 Stock No. 7571741)

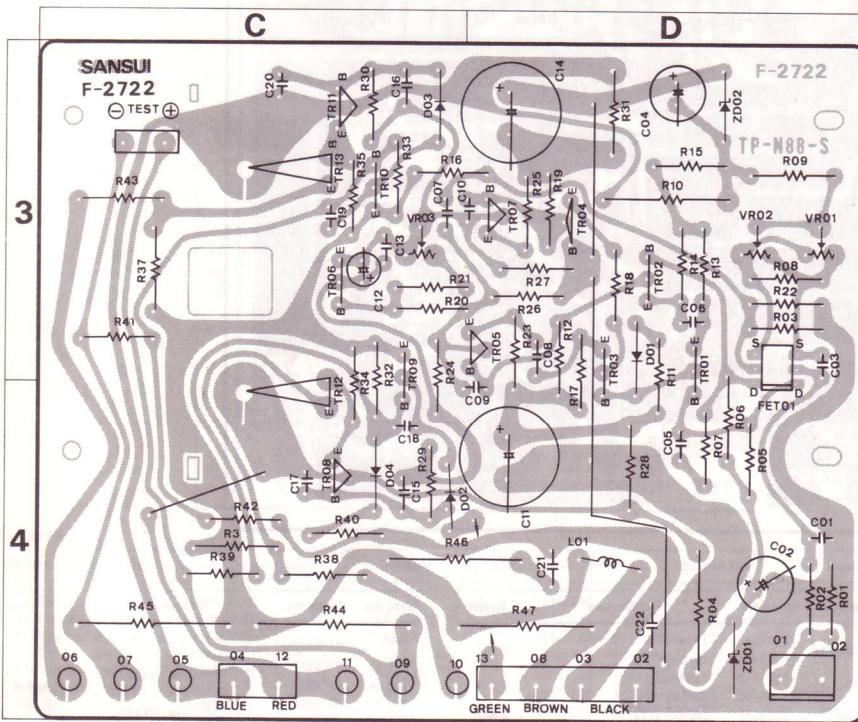


Parts List

Parts No.	Stock No.	Description	Position
TR01	0306290_1	2SC1400(1)(E, U)	Transistor
TR02	0306290_1	2SC1400(1)(E, U)	
TR03	0308090_1	2SA750(3)(E, U)	
TR04	0308090_1	2SA750(3)(E, U)	
TR05	0307971_2	2SA899(B, V)	
TR06	0305951_2	2SC945(Q, P)	
TR07	0306401_2	2SC1904(B, V)	
TR08	0306401_2	2SC1904(B, V)	
TR09	0305951_2	2SC945(Q, P)	
TR11	0307971_2	2SA899(B, V)	
TR12	0308441-3	2SD582(M, L, K)	
TR13	0303271_2	2SB537(M, L, K)	
FT01	0370251_2	2SK97 FET	
D01	0311160	1S2473D	
D02	0311160	1S2473D	
D03	0311160	1S2473D	Diode
D04	{0311160 0311180}	1S2473D 1S1588	
ZD01	0316170	EQB01-22	
ZD02	0316170	EQB01-22	Zener Diode
C01	0620101	100pF	
C05	0620331	330pF	50V P.C.
C07	0669505	5pF	50V C.C.
R04	0202222	2.2kΩ	2 W N.I.R.
R05	0231332	3.3kΩ	½ W M.R.
R06	0231332	3.3kΩ	2 A.4 D
R09	0103392	3.9kΩ	½ W C.R.
R10	0202152	1.5kΩ	2 W N.I.R.
R28	0210470	47Ω	½ W N.I.R.
R31	0210470	47Ω	½ W N.I.R.
R36	0103560	56Ω	
R37	0103560	56Ω	½ W C.R.
R38	0103479	4.7Ω	½ W C.R.
R43	0103479	4.7Ω	1 B.3 C
R44	0135338	0.33Ω	2 B.4 C
R45	0135338	0.33Ω	2 B.4 C
R46	0202100	10Ω	2 W N.I.R.
R47	0132229	2.2Ω	2 W Ce.R.
L01	4210290	1.5μH Coil	2 A.4 D
VR01	1033570	100Ω(B) Volume	1 A.3 D
VR02	1035330	2.2kΩ(B) Volume	1 A.3 D
VR03	1035310	1kΩ(B) Volume	2 A.4 D

6-11. F-2722 Driver Circuit Board (R-ch) (AU-517 Stock No. 7571731) (AU-717 Stock No. 7571751)

Conductor Side

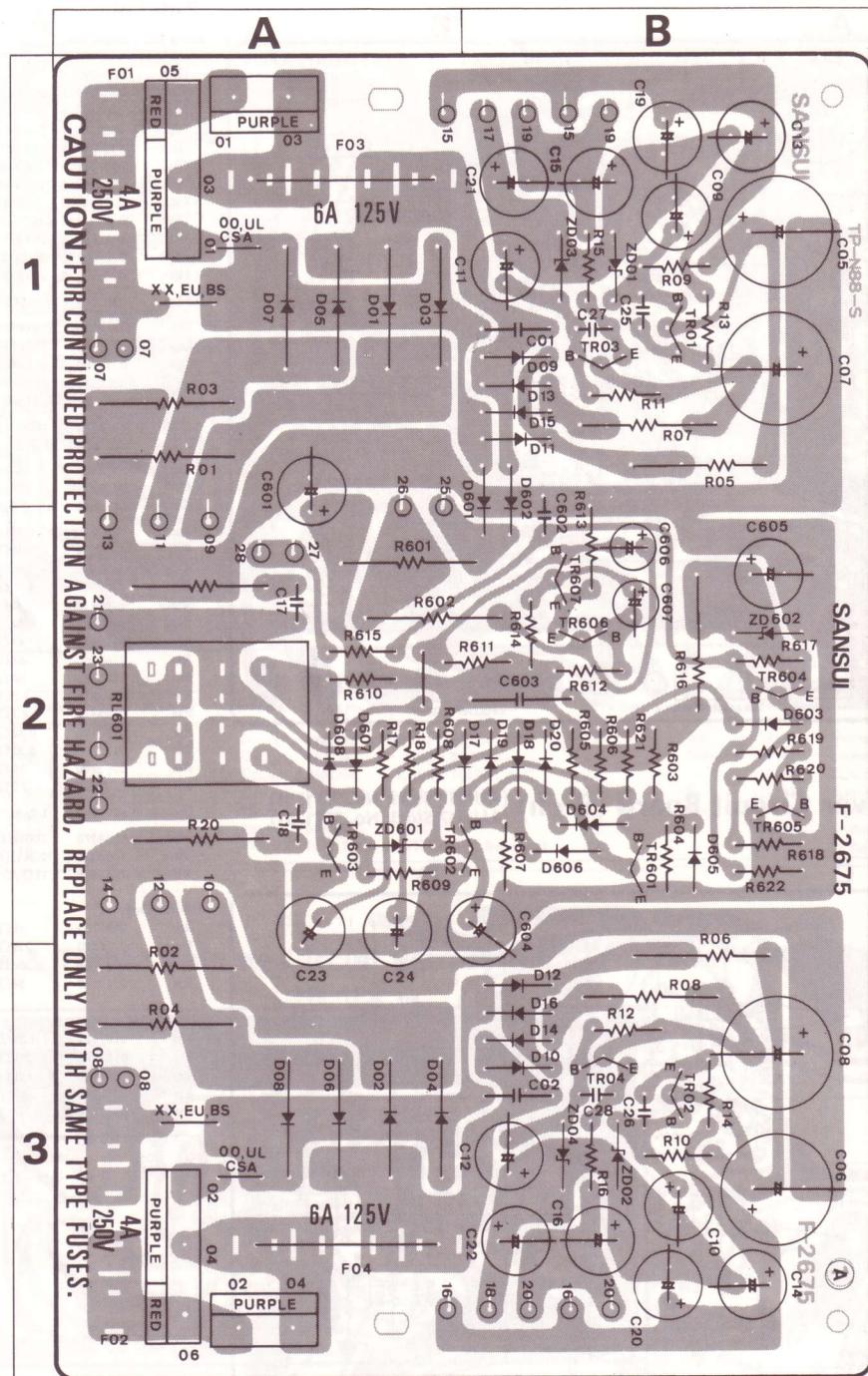


AU-517 Only

R03	0107102	$1k\Omega$	$\frac{1}{4}W$	C.R.	1A..3D
R16	0107223	$22k\Omega$	$\frac{1}{4}W$		1A..B.C..D
R28	0210560	56Ω	$\frac{1}{2}W$	N.I.R.	2A..4D
R31	0210560	56Ω	$\frac{1}{2}W$	N.I.R.	1A..3D

6-12. F-2675 Power Supply & Protector Circuit Board (AU-517 Stock No. 7502331)

Conductor Side



Parts List

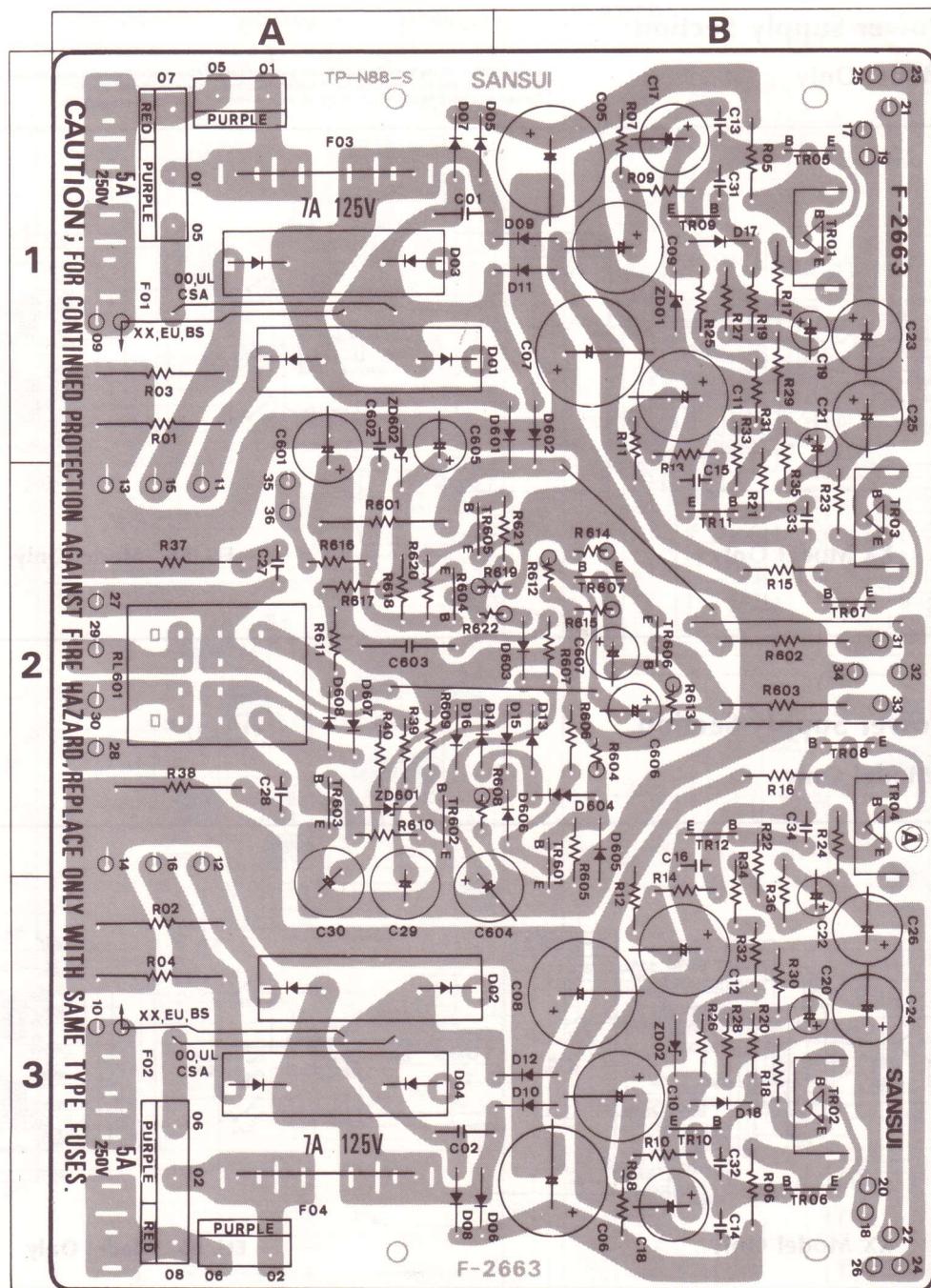
Parts No.	Stock No.	Description	Position	
TR01, 02	0308521, 2	2SD438 (E, F)	Transistor	1 B, 3 B
TR03, 04	0303361, 2	2SB560 (E, F)		1 B, 3 B
TR601	0305951, 2	2SC945 (Q, P)		2 B
TR602	0305951, 2	2SC945 (Q, P)		2 B
TR603	0305951, 2	2SC945 (Q, P)		2 A
TR604	0305010, 1	2SA733 (P, Q)		2 B
TR605	0305951, 2	2SC945 (Q, P)		2 B
TR606	0305951, 2	2SC945 (Q, P)	2 B	
TR607	0305951, 2	2SC945 (Q, P)	2 B	
D01, 02	03115130	30D2	Diode	1 A, 3 A
D03, 04	03115130	30D2		2 A
D05, 06	03115130	30D2		1 A, 3 A
D07, 08	03115130	30D2		1 A, 3 A
D09, 10	03103050	100D2 (1S2227)	Diode	1 B, 3 B
D11, 12	03103050	100D2 (1S2227)		1 B, 3 B
D13, 14	03103050	100D2 (1S2227)		1 B, 3 B
D15, 16	03103050	100D2 (1S2227)		3 B, 3 B

Parts No.	Stock No.	Description	Position
D17-18	{ 0311160 0311180	1S2473D 1S1588	2 B
D19-20	{ 0311160 0311180	1S2473D 1S1588	
D601	0310350	1OD2 (1S2227)	2 A
D602	0310350	1OD2 (1S2227)	
D603	0311160	1S2473D	2 B
D604	0340120	VID12 Varistor	2 B
D605	0311160	1S2473D	2 B
D606	0311160	1S2473D	2 B
D607	0311160	1S2473D	
D608	0310340	1OD1 (1S2226)	2 A
ZD01, 02	0316570	RD33E (B)	1 B . 3 B
ZD03, 04	0316570	RD33E (B)	
ZD401	0315760	EQA01-06R	Zener Diode
ZD402	0316390	RD6.2E (B)	2 B
C01-02	0655103	10000pF 500V C.C.	1 B . 3 B

Parts No.	Stock No.	Description	Position
C603	0602338	0.33μF 100WV M.C.	2 B
R01, 02	0202272	2.7kΩ 2 W N.I.R.	1 A . 3 A
R03, 04	0202272	2.7kΩ 2 W N.I.R.	1 A . 3 A
R05, 06	0210101	100Ω ½ W N.I.R.	2 B . 3 B
R07, 08	0210101	100Ω ½ W N.I.R.	1 B . 3 B
R19, 20	0202100	10Ω 2 A	2 A
R601	0202391	390Ω 2 W N.I.R.	2 B
R602	0202222	2.2kΩ 2 B	2 B
R616	0210472	4.7kΩ ½ W N.I.R.	2 B
RL601	1150250	Relay	2 A
	1150370	Relay	
F01, 02	0435160	4A 125V Power fuse UL, CSA	1 B . 3 B
	0432300	6A 125V AC fuse XX	
	0435160	4A-T AC fuse EU, BS	
	2310220	Fuse Holder XX	
	2310230	Fuse Holder EU, BS	

6-13. F-2663 Power Supply & Protector Circuit Board (AU-717 Stock No. 7502321)

Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0308451, 2	2SD356 (D, E)	1B.3B
TR03, 04	0303281, 2	2SB526 (D, E)	2B
TR05, 06	0306270, 1	2SC1708 (E, U)	1B.3B
TR09, 08	0300710, 1	2SA847(1)(F, G)	2B
TR09, 10	0306270, 1	2SC1708 (F, G)	1B.3B
TR11, 12	0300710, 1	2SA847(F, G)	2B
TR401	0305951, 2	2SC945 (Q, P)	2B
TR402	0305951, 2	2SC945 (Q, P)	2A
TR403	0305951, 2	2SC945 (Q, P)	2A
TR404	0300510, 1	2SA733 (P, Q)	2A
TR405	0305951, 2	2SC945 (Q, P)	2A
TR406	0305951, 2	2SC945 (Q, P)	1B
TR407	0305951, 2	2SC945 (Q, P)	1B
D01, 02	0311290	SS-3	1A.3A
D03, 04	0311300	SS-3R	1A.3A
D05, 06	0310350	10D2 (1S2227)	1A.3A
D07, 08	0310350	10D2 (1S2227)	1A.3A
D09, 10	0310350	10D2 (1S2227)	1A.3A
D11, 12	0310350	10D2 (1S2227)	1A.3A

Parts No.	Stock No.	Description	Position
D13-14	0311160	1S2473D	1B.1A
	0311180	1S1588	
D15-16	0311160	1S2473D	1B.1A
	0311180	1S1588	
D17-18	0311160	1S2473D	1B.3B
	0311180	1S1588	
D601	0310350	10D2 (1S2227)	2A
D602	0310350	10D2 (1S2227)	2A
D603	0311160	1S2473D	2B
D604	0340120	VD1212 Varistor	2B
D605	0311160	1S2473D	2B
D606	0311160	1S2473D	2B
D607	0311160	1S2473D	2B
D608	0310340	10D1 (1S2226)	2A
D609	0340120	VD1212 Varistor	
D610	0340120	VD1212	
ZD01, 02	0316310	RD-13E (B)	1B.3B
ZD01	0315760	ZQA01-06R	2A
ZD02	0316390	RD-6.2E (B)	1A

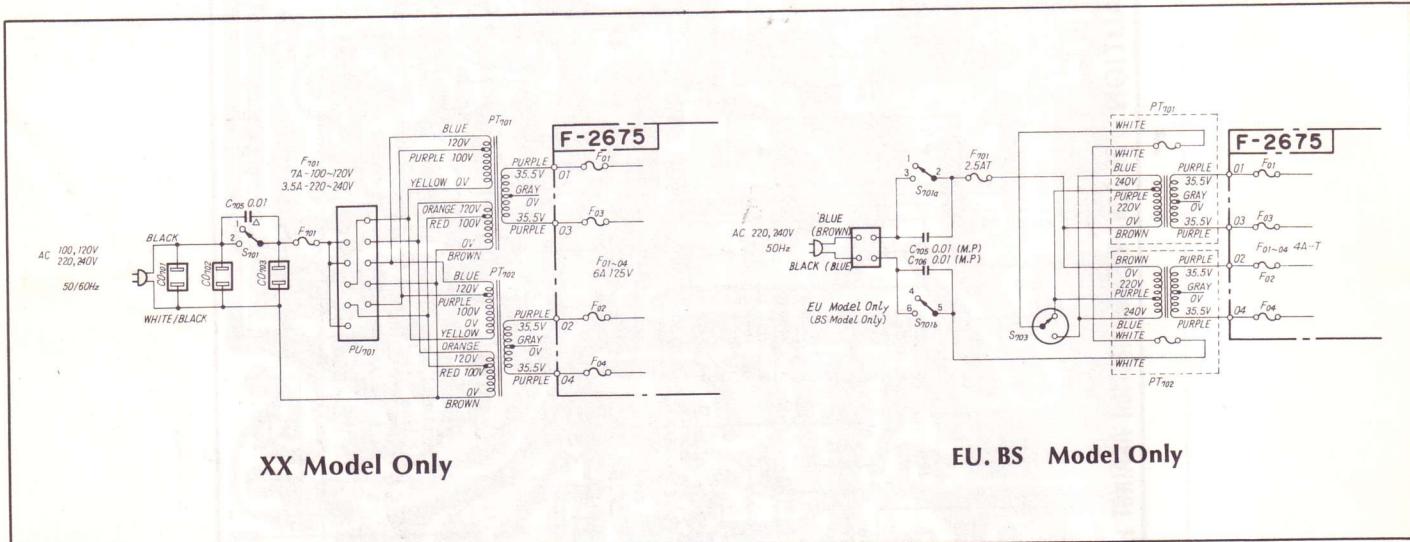
Parts No.	Stock No.	Description	Position
C01, 02	0655103	10000pF	1A.3A
C03, 04	0655103	10000pF	1A.3A
C03	0602338	0.33μF	2B
R01, 02	0202332	3.3kΩ	2W N.I.R.
R03, 04	0202332	3.3kΩ	1A.3A
R05, 06	0210101	100Ω	1B.3B
R15, 16	0210101	100Ω	2B
R37, 38	0202100	10Ω	2A
R401	0202391	390Ω	2B
R602	0202272	2.7kΩ	2B
R603	0202272	2.7kΩ	2B
R617	0210472	4.7kΩ	1/2W N.I.R.
RL601	[1]150250	Relay	2A
	[1]150370	Relay	
F01, 02	0432290	5A 125V Power fuse UL, CSA	1A.3A
F01-04	0432500	7A 125V AC fuse XX	1A.3B
	0435170	5A-T AC fuse EU, BS	
	2310220	Fuse Holder XX	
	2310230	Fuse Holder EU, BS	

7. SCHEMATIC DIAGRAM

7-1. AU-517 Power Supply Section

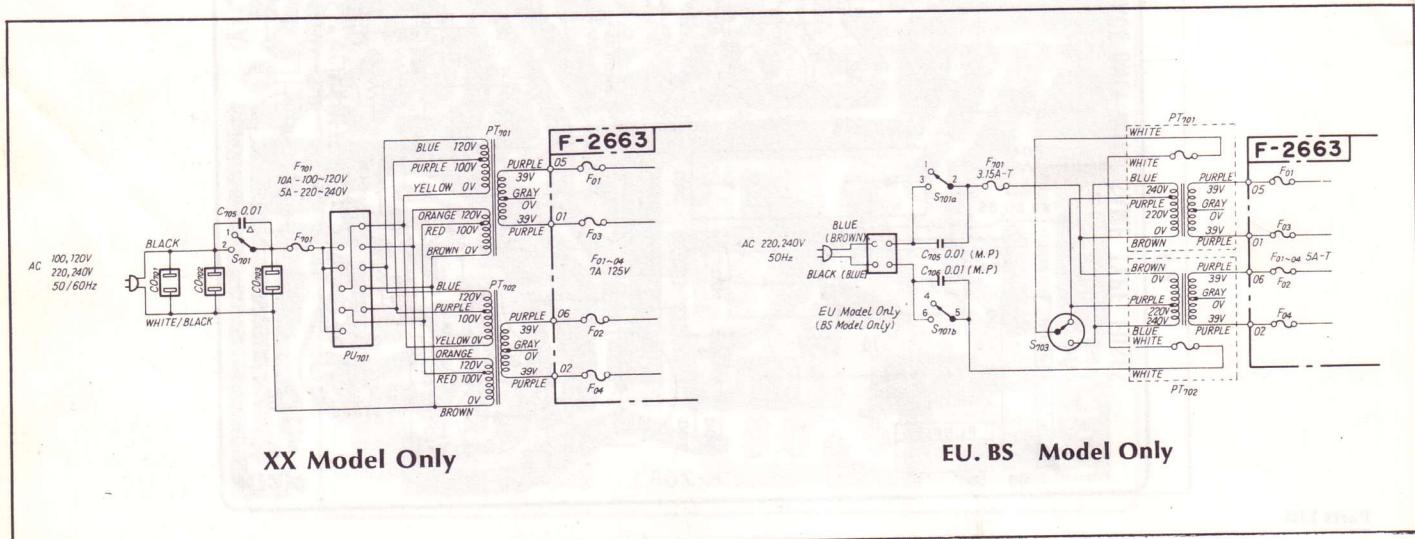
XX EU. BS Model Only

- La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
- Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
- Design and specifications subject to change without notice for improvement.



7-2. AU-717 Power Supply Section

XX EU. BS Model Only



NOTE:

AS to III CSA, B.S., ES and XX marked in the Parts Lists, note the followings:

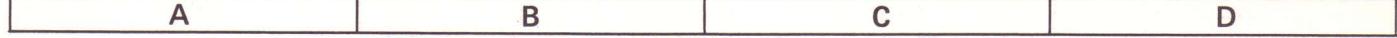
AS to U.S.A., B.S. and A.S.T.M. standards. Approved parts used in the unit which is applicable to the U.S. and Canada under safety standard.

U.L., C.S.A....Approved parts used in the unit which is applicable to the U.S.A.
B.S. Approved parts used in the unit which is applicable to British under safety requirement.

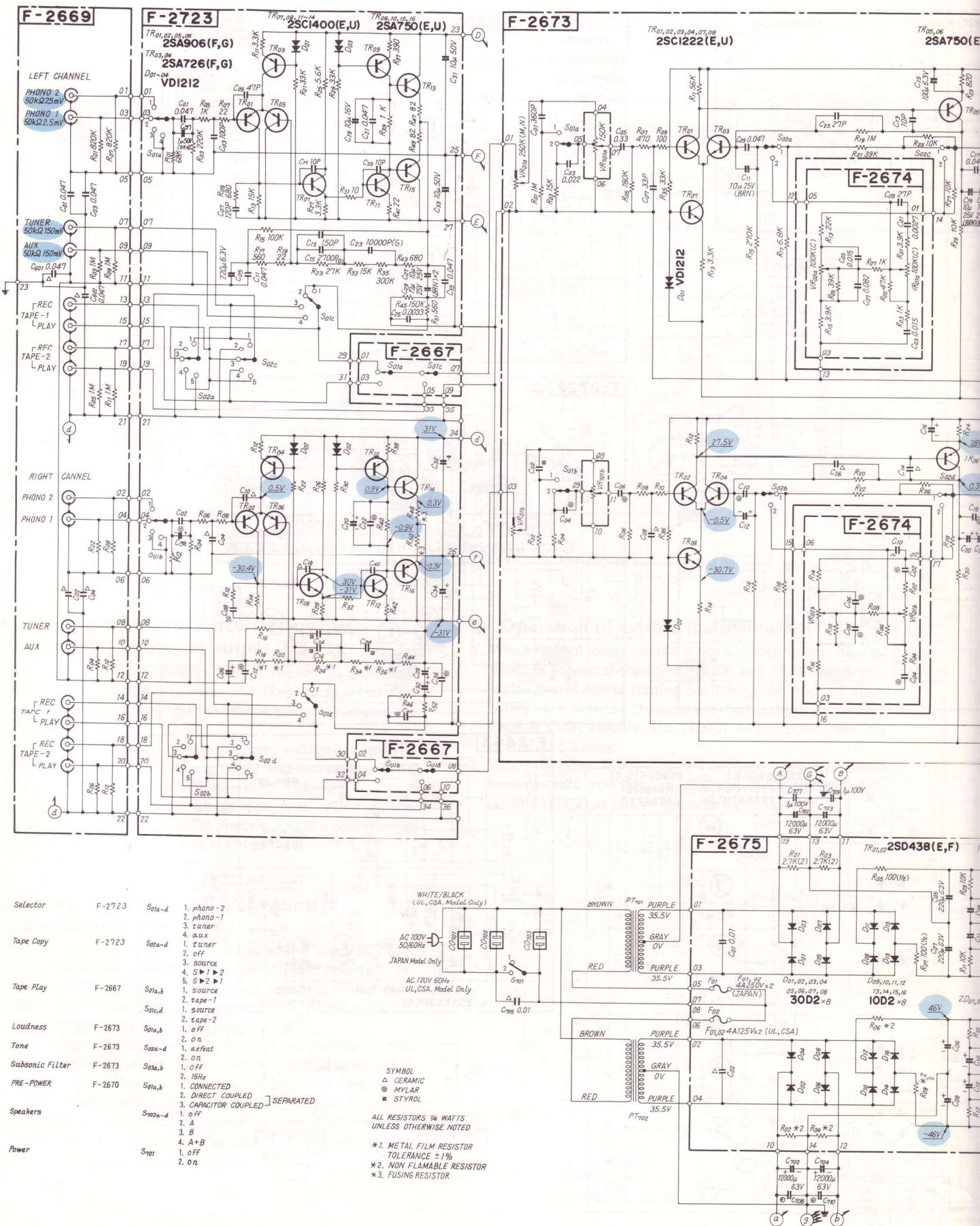
B.S.Approved parts used in the unit which is applicable to British Under Safety requirement.
E.U.Approved parts used in the unit which is applicable to Sweden, Denmark, Norway, Finland, West Germany, and Switzerland under safety requirement.

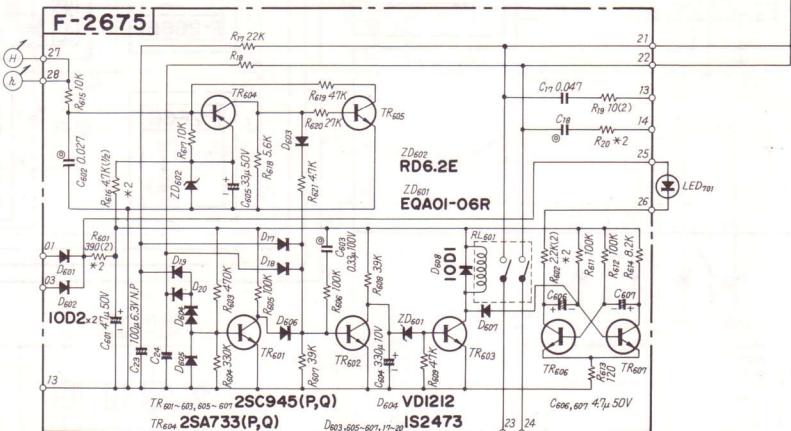
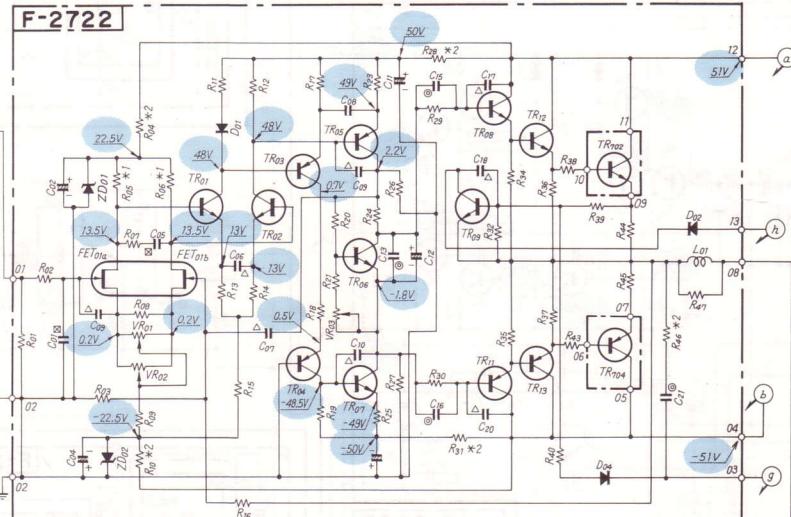
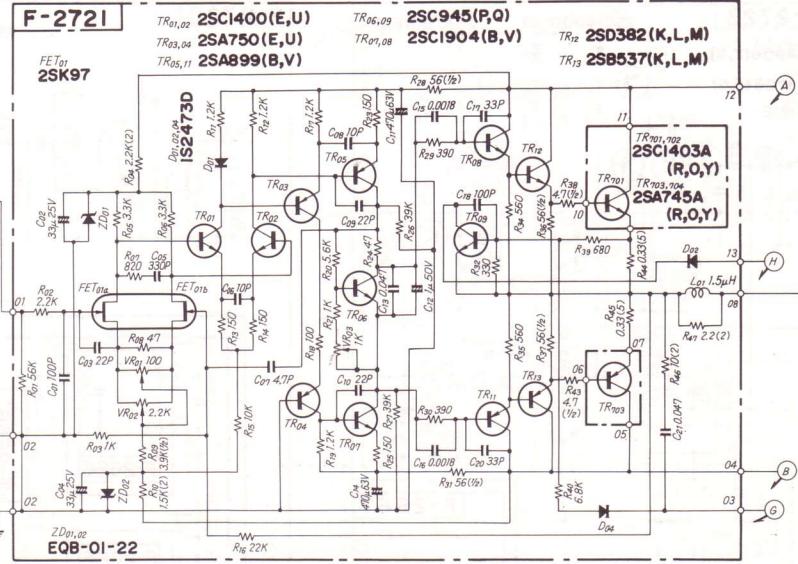
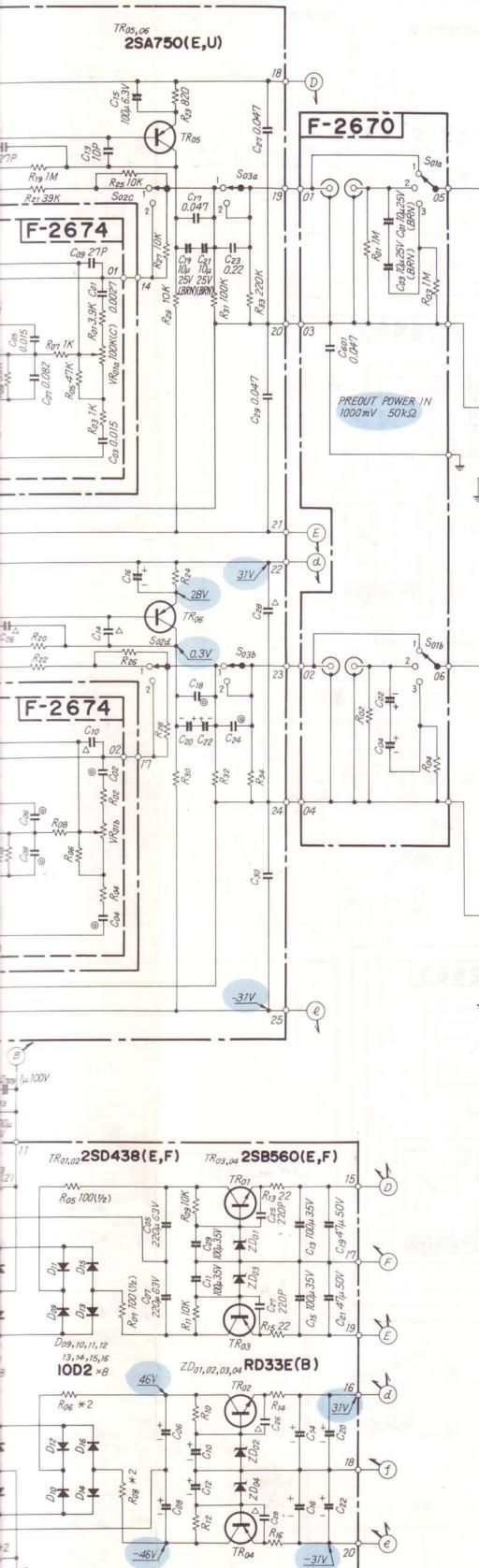
xx Germany, and Switzerland under safety requirement.
Parts used in the unit which is applicable to other countries excepting mentioned above.

* In parts lists, parts with no above mark in of "Description" are all the same as XX marked parts.



7-3. AU-517

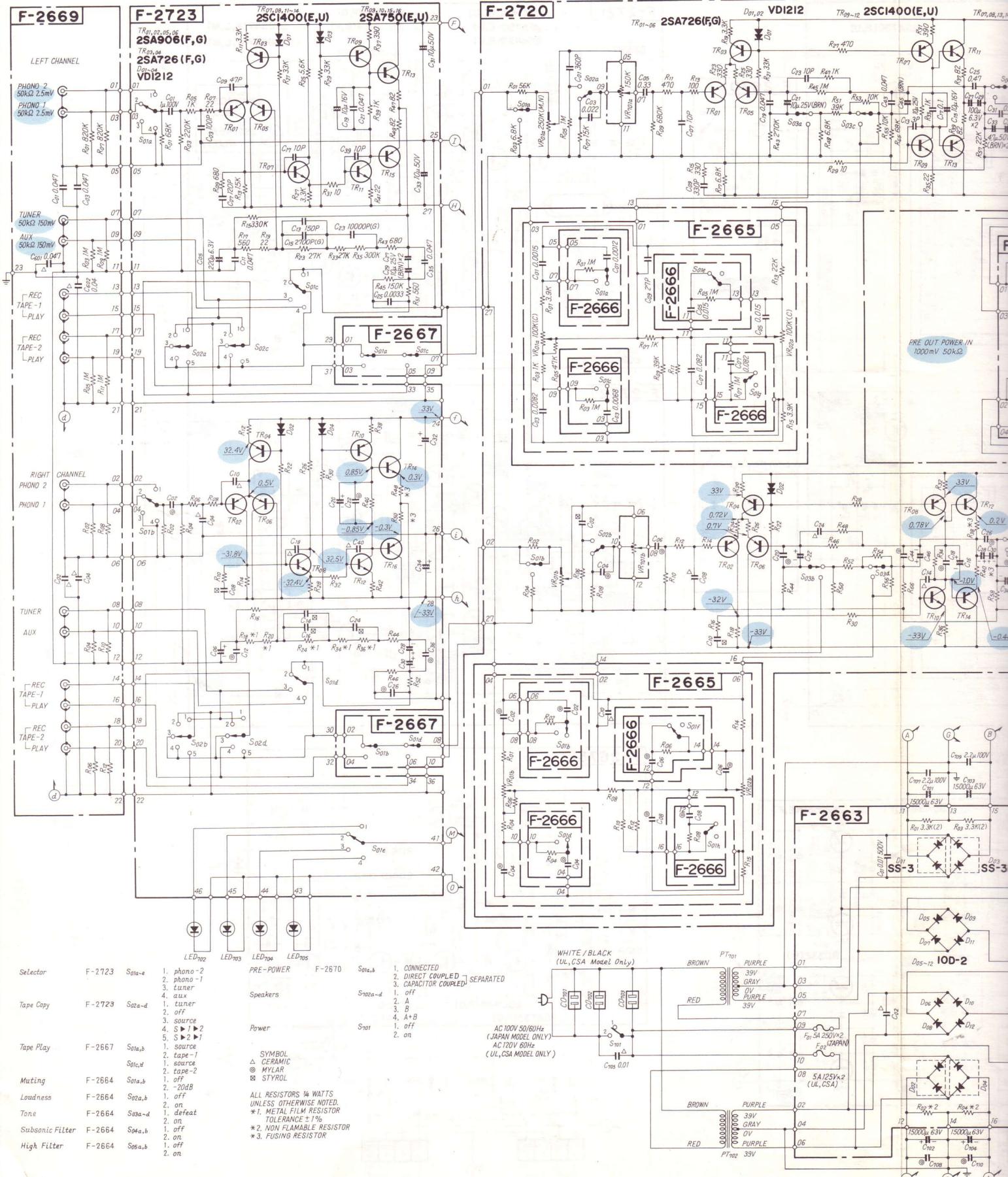




BIAS CURRENT
 30 mA (TP to TP 20 mV)
 SPEAKERS
 65 W + 65 W / 8Ω
 PHONES
 80 mW + 80 mW / 8Ω
 BOTH CHANNEL DRIVEN
 AT 1000 Hz



7-4. AU-717

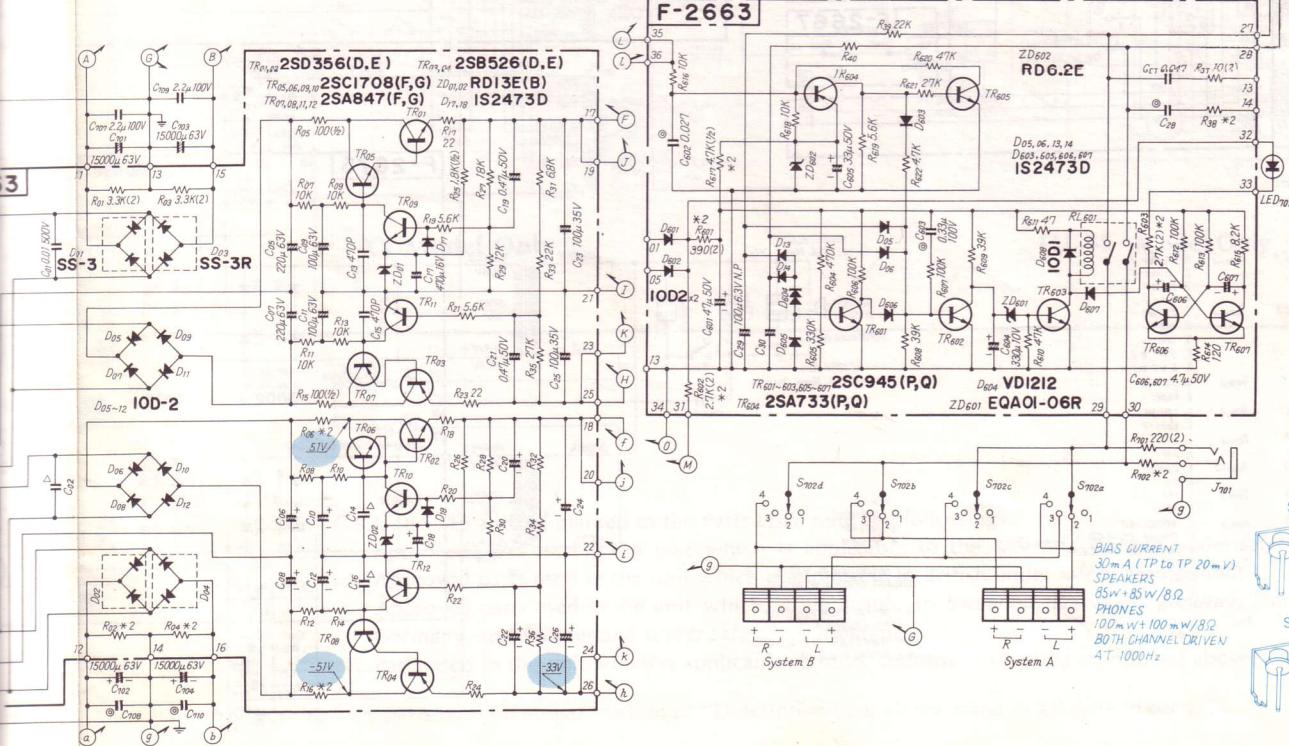
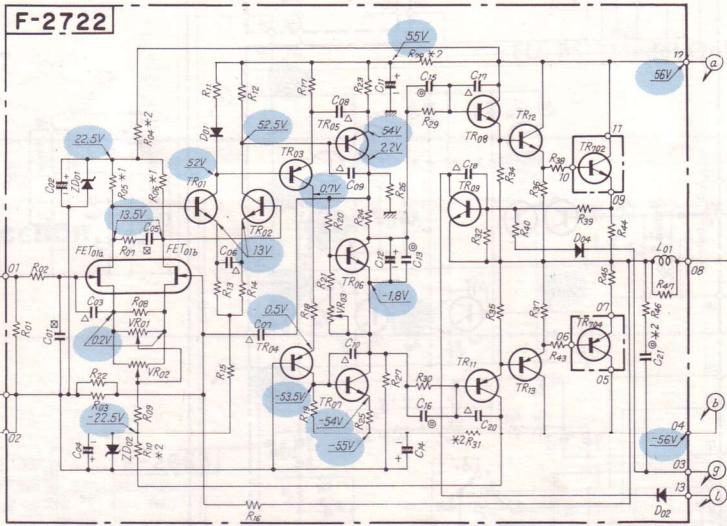
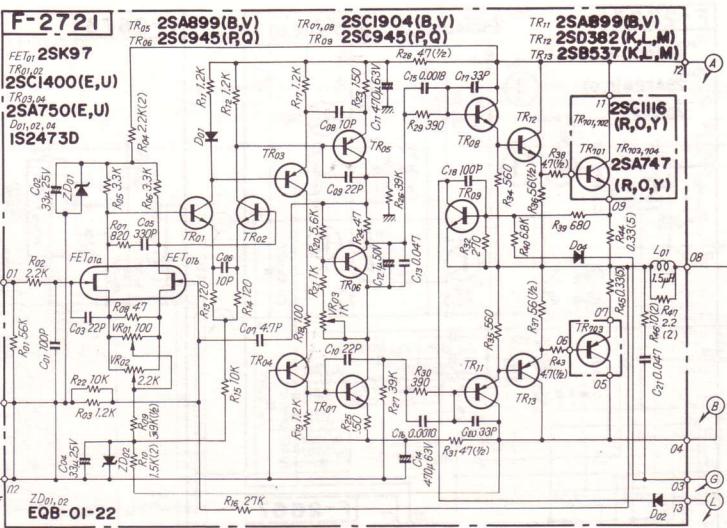
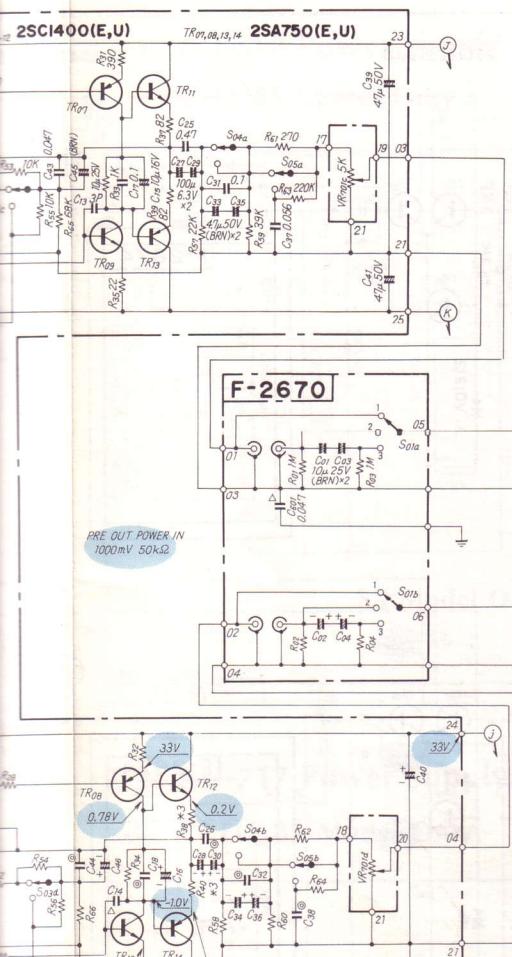


E

F

G

H



1



2



3



4

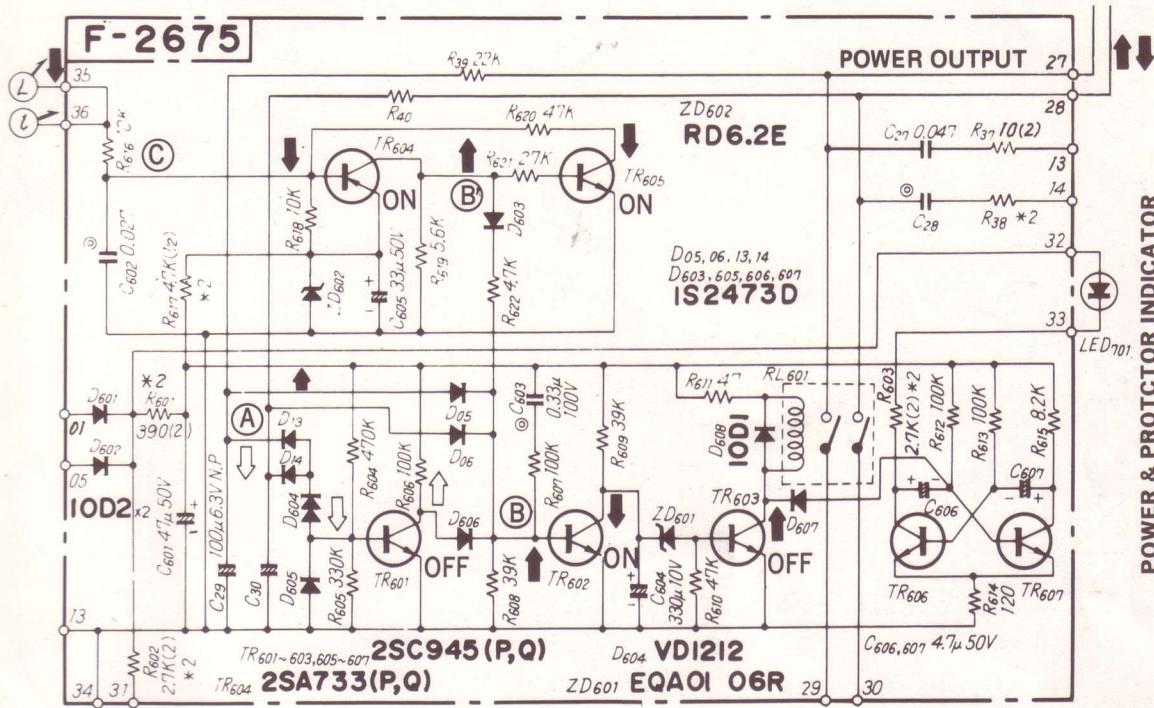


5



8. OPERATION OF PROTECTOR CIRCUIT

This protector circuit contains two functions at abnormal condition; a speaker protector circuit against DC voltage appearing at output, and speaker protector circuit against over-current.



POWER & PROTECTOR INDICATOR

A. Speaker Protection Circuit against DC voltage appearing at output A

- When an abnormal negative voltage appears at output A, TR601 turns off, TR602 turns on and TR603 turns off so that the relay, RL601, keeps off in order to protect loudspeakers from break-down.
- While the relay, RL601, keeps OFF, zero voltage (center voltage) controlling TR607 through D607 will increase, resultly the LED701 as protector indicator, starts flickering.
- When abnormal positive voltage appears at output A, the voltage is supplied to TR602 directly, and the operation of the protector circuit is same as above mentioned 1.

B. Speaker Protection Circuit against abnormal over-current

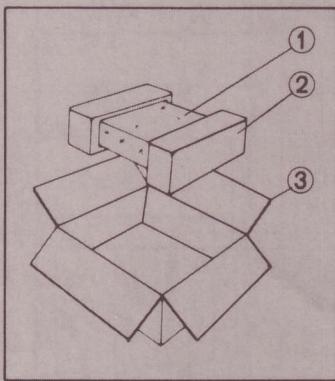
- At the moment when abnormal excessive current flows into power transistors, a transistor (TR09) detecting excessive over-current, on power stage becomes ON.
- Then, DC voltage at C decreases, resultly TR604 turns on, and positive certain voltage appears at B'.
- As mentioned above, when TR602 turns on, the relay, RL601, keeps OFF; a certain positive voltage at B' turns on TR605 too, resultly collector voltage of TR605 decreases and its collector voltage keeps a certain voltage at C simultaneously.
- By keeping a certain DC voltage at C, the LED701 as protector indicator continues flickering, even though all circuits work completely.

C. Operation of astable multivibrator

- When control (bias) voltage is not supplied to the base of TR607 in abnormal condition, TR606 and TR607, on astable multivibrator repeat turning (switching) on and off alternately each other by charging and discharging of capacitors, C606 & C607, resultly, the LED701 as protector indicator continues flickering.
- When the relay, RL601 is turned on, base voltage of TR607 becomes zero volt through D607 and TR606 becomes ON, resultly LED701 as power indicator lights up.

9. PACKING LIST

Parts No.	Stock No.	Description
1	9116670	Vinyl Cover
2	{9028020 9028030}	Stylofoam Packing (L) Stylofoam Packing (R)
3	{9009710 9009700}	Carton Case (AU-717) Carton Case (AU-517)



10. ACCESSORY PARTS LIST

Stock No.	Description
9202520	Operating Instructions (AU-517)
9202500	Operating Instructions (AU-717)
5192082	Hexagon Wrench (1.5mm)
9116580	Vinyl Bag For Wrench
9237540	Schematic Diagram (AU-517)
9237550	Schematic Diagram (AU-717)
5396340	Rack Mounting Adaptor (each)
5216100	Rear Stand (each)

MEMO

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3036 Koapaka St. Honolulu, Hawaii 96819 U.S.A.

SANSUI AUDIO EUROPE N.V.: North Trade Bldg (9th floor) Noorderlaan 133-Bus 1,2030 Antwerp, Belgium
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SANSUI ELECTRIC COMPANY LTD.: 14-1, Izumi 2-chome, Suginamiku, Tokyo 168 Japan PHONE: (03) 323-1111/TELEX:232-2076

Sansui